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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/721,462

11/22/2000

Adnan Shennib

ISM/015

3046

33779

7590

05/06/2004

SHARON R. KANTOR
65 PANORAMA COURT
DANVILLE, CA 94506-6154

EXAMINER

FAULK, DEVONA E

ART UNIT

PAPER NUMBER

2644

5

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/721,462

Applicant(s)

SHENNIB, ADNAN

Examiner

Devona E. Faulk

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1,10,12,13,22,24** are rejected under 35 U.S.C. 102(b) as being anticipated by Oliveira (U.S. Patent 5,401,920).

Regarding **claim 1**, Oliveira discloses a cerumen filter for hearing aids comprising a strong, flexible membrane (11) having attaching lobes (10a,10p) (figure 1) and a pressure-sensitive adhesive (14) that serves to affix the wax guard (10) to a hearing aid (column 3, lines 7-30). Oliveira also teaches that the wax guard provides improved retention of small earpieces in the dynamic ear canal (column 2, lines 40-42). It is therefore interpreted that the wax guard is conformable to the ear canal. This all reads on “a conforming perimeter adapted to fit in a retaining manner along the cross-sectional wall of the ear canal cavity”. Oliveira further teaches of the wax guard including a thin, sound-transmitting soft membrane layer (31) (Figure 3) made of reticulated open cell micro-porous foam (column 3, lines 37-50), which reads on “a central porous member having pores sized for allowing air to pass through said porous member while preventing passage of fluids and solids therethrough”; and a central portion (36), of central lobe (30c) of the wax guard (10), that is mounted over the outlet port of the sound-transmitting tube (51) of the hearing aid (50) (Figure 6) (column 3, lines 52-column 4, line 25), which reads on “said intracanal shield, when fitted in said retaining manner in the ear canal cavity, being

Art Unit: 2644

positioned laterally with respect to a miniature hearing device medially positioned in close proximity to the eardrum, whereby to protect said hearing device against penetration of fluids and debris through said porous member while allowing air-borne sounds to reach the hearing device”.

Claim 10 claims the intracanal shield of claim 1, wherein said pores are sized in the range of 1 to 10 microns. Regarding claim 10, Oliveira discloses a hearing aid (50) (Figure 6) having a thin, sound-transmitting soft membrane layer (31) (Figure 5) made of reticulated open cell micro-porous foam (column 3, lines 37-50), which reads on the claim language.

All elements of **claim 12** are comprehended by claim 1.

3. Regarding **claim 13**, Oliveira discloses a hearing aid (50) (Figure 6), which reads on “a hearing device assembled and dimensioned to be medially positioned in the ear canal”; a central portion (36), of central lobe (30c) of the wax guard (10), that is mounted over the outlet port of the sound-transmitting tube (51) of the hearing aid (50) (Figure 6) (column 3, lines 52-column 4, line 25) , which reads on “said intracanal shield, shaped and dimensioned to be laterally positioned with respect to said hearing device, so that said intracanal shield caps the cavity of said ear canal”; the hearing aid having a wax guard (10) including a cerumen filter comprising a strong, flexible membrane (11) having attaching lobes (10a, 10p) (figure 1) and a pressure-sensitive adhesive (14) that serves to affix the wax guard (10) to a hearing aid (column 3, lines 7-30), which reads on “a conforming perimeter for fitting in a retaining manner along the cross-sectional wall of the ear canal ”; a thin, sound-transmitting soft membrane layer (31) (Figure 5) made of reticulated open cell micro-porous foam (column 3, lines 37-50), which

reads on "a central porous member for air ventilation with respect to said hearing device, and having pores sized to prevent penetration of fluids and solids therethrough".

Claim 22 claims the hearing system of claim 13, wherein said pores are sized in the range of 1 to 10 microns. Oliveira discloses a hearing aid (50) (Figure 6) having a thin, sound-transmitting soft membrane layer (31) (Figure 5) made of reticulated open cell micro-porous foam (column 3, lines 37-50), which reads on the claim language.

All elements of **claim 24** are comprehended by claim 13.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 2,4,5,7,14,16,17,19 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira (U.S. Patent 5,401,920) in view of Flagler (U.S. Patent 6,134,333).

Claim 2 claims the intracanal shield of claim 1, wherein said intracanal shield is separate from said canal hearing device for independent insertion and removal while said hearing device is positioned in-situ. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore Oliveria meets all elements of claim 2 with the exception of the intracanal shield being separate from said canal hearing device for independent insertion and removal while said hearing device is positioned in-situ. Regarding claim 2, Flagler discloses a cerumen barrier (10) including a sound passage endcap (12) having a disposable oleophobic and hydrophobic

Art Unit: 2644

barrier and fastened by a retainer ring (14) , the sound passage endcap (12) being removable from the retainer ring and disposable when the wax build-up becomes to great (column 3, lines 21-49). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the barrier was capable of being inserted as claimed for the benefit of having a cerumen barrier that is more easily replaced.

Claim 4 claims the intracanal shield of claim 1, wherein said porous member is hydrophobic. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore Oliveria meets all elements of claim 4 with the exception of the porous member being hydrophobic. Regarding claim 4, Flagler teaches of a disposable oleophobic and hydrophobic barrier for a hearing aid. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the porous member is hydrophobic for the benefit of having a wax guard that could repel water.

Claim 5 claims the intracanal shield of claim 1, wherein said porous member is oleophobic. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 5 with the exception of the porous member being oleophobic. Regarding **claim 5**, Flagler teaches of a disposable oleophobic and hydrophobic barrier for a hearing aid. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the porous member is oleophobic for the benefit of having a wax guard that could repel oil.

Claim 7 claims the intracanal shield of claim 1, wherein said intracanal shield is composed of disposable material for cost-effective single use of said shield. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore, Oliveria meets all

Art Unit: 2644

elements of claim 7 with the exception of the claimed matter. Regarding claim 7, Flagler discloses a cerumen barrier (10) including a sound passage endcap (12) having a disposable oleophobic and hydrophobic barrier and fastened by a retainer ring (14), the sound passage endcap (12) being removable from the retainer ring and disposable when the wax build-up becomes too great (column 3, lines 21-49). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the barrier was capable of being inserted as claimed for the benefit of having a cerumen barrier that is more easily replaced.

Claim 14 claims the hearing system of claim 13, wherein said intracanal shield is separate from said hearing device for independent insertion into and removal from the ear while said hearing device is positioned in-situ. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 14 with the exception of the claimed matter. Regarding claim 14, Flagler discloses a cerumen barrier (10) including a sound passage endcap (12) having a disposable oleophobic and hydrophobic barrier and fastened by a retainer ring (14), the sound passage endcap (12) being removable from the retainer ring and disposable when the wax build-up becomes too great (column 3, lines 21-49). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the barrier was capable of being inserted as claimed for the benefit of having a cerumen barrier that is more easily replaced.

Claim 16 claims the hearing system of claim 13, wherein said porous member is hydrophobic. As stated above apropos of claim 31, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 16 with the exception of the claimed matter.

Art Unit: 2644

Regarding claim 16, Flagler teaches of a disposable oleophobic and hydrophobic barrier for a hearing aid. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the porous member is hydrophobic for the benefit of having a wax guard that could repel water.

Claim 17 claims the hearing system of claim 13, wherein said porous member is oleophobic. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 16 with the exception of the claimed matter. Regarding claim 17, Flagler teaches of a disposable oleophobic and hydrophobic barrier for a hearing aid. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the porous member is oleophobic for the benefit of having a wax guard that could repel oil.

Claim 19 claims the hearing system of claim 13, wherein each of said hearing device and said hearing device and said intracanal shield is disposable. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 19 with the exception of the claimed matter. Regarding claim 19, Flagler discloses a cerumen barrier (10) including a sound passage endcap (12) having a disposable oleophobic and hydrophobic barrier and fastened by a retainer ring (14), the sound passage endcap (12) being removable from the retainer ring and disposable when the wax build-up becomes to great (column 3, lines 21-49). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveria's wax guard so that the barrier was capable of being inserted as claimed for the benefit of having a cerumen barrier that is more easily replaced.

6. Regarding **claim 25**, Oliveira discloses a cerumen filter for hearing aids comprising a strong, flexible membrane (11) having attaching lobes (10a,10p) (figure 1) and a pressure-sensitive adhesive (14) that serves to affix the wax guard (10) to a hearing aid (column 3, lines 7-30); a thin, sound-transmitting soft membrane layer (31) (Figure 3) made of reticulated open cell micro-porous foam (column 3, lines 37-50), and a central portion (36), of central lobe (30c) of the wax guard (10), that is mounted over the outlet port of the sound-transmitting tube (51) of the hearing aid (50) (Figure 6) (column 3, lines 52-column 4, line 25). This all reads on “an acoustically permeative cap shaped and dimensioned to be positioned entirely in the ear canal for extended wear therein to protect a medially positioned hearing device within the ear canal against infiltration of fluids and debris”. Oliveira fails to disclose that the cap is hydrophobic. However, the concept of a hydrophobic cap was well known in the art at the time of filing as taught by Flagler. Flagler discloses a cerumen barrier (10) including a sound passage endcap (12) having a disposable oleophobic and hydrophobic barrier and fastened by a retainer ring (14), the sound passage endcap (12) being removable from the retainer ring and disposable when the wax build-up becomes too great (column 3, lines 21-49). Modifying Oliveira’s wax guard by making the porous material hydrophobic reads on “said cap being hydrophobic and porous with pores sized to prevent fluids and solids from penetrating, but allow air-borne sound passage, therethrough into the ear canal toward said hearing device”. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveira’s wax guard so that the porous member is hydrophobic for the benefit of having a wax guard that could repel water.

Art Unit: 2644

7. **Claims 8,9,11,20,21,23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira (U.S. Patent 5,401,920) in view of Brown et al. (U.S Patent 6,129,174).

Claim 8 claims the intracanal shield of claim 1, wherein said shield is at least partially composed of polyurethane foam. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 8 with the exception of the claimed matter. Regarding claim 8, Brown teaches on a replaceable acoustic coupler, including a cerumen-protecting feature (Abstract), made of a compressible material, such as polyurethane foam or silicone, to conform to the shape of ear canal, thus sealing the ear canal (column 7, lines 7-15). Thus it would have been obvious to one of ordinary skill in the art to have the shield at least partially composed of polyurethane foam for the benefit of enabling Oliveira's intracanal device to better conform to the shape of ear canal, thus sealing the ear canal.

Claim 9 claims the intracanal shield of claim 1, wherein said shield is at least partially composed of silicone material. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 9 with the exception of the claimed matter. Regarding claim 9, Brown teaches on a replaceable acoustic coupler , including a cerumen-protecting feature (Abstract), made of a compressible material, such as polyurethane foam or silicone, to conform to the shape of ear canal, thus sealing the ear canal (column 7, lines 7-15). Thus it would have been obvious to one of ordinary skill in the art to have the shield at least partially composed of silicone for the benefit of enabling Oliveira's intracanal device to better conform to the shape of ear canal, thus sealing the ear canal.

Claim 11 claims the intracanal shield of claim 1, wherein said intracanal shield is shaped and dimensioned to be positioned deep in the ear canal past the hair and cerumen production

Art Unit: 2644

area therein. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 11 with the exception of the claimed matter. Regarding claim 11, Brown discloses a replaceable acoustic acoustic coupler, including a cerumen-protecting feature (Abstract), adapted for use with an intracanal receiver module can be deeply inserted into the ear canal of the user while making minimal contact with the walls of the ear canal (See Abstract). Therefore, the concept of having a intracanal device that can be deeply inserted in the ear canal was well known at the time of filing. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveira's intracanal device so that it could be inserted deeply into the ear for the benefit of enabling a deeper insertion of the hearing aid.

Claim 20 claims the hearing system of claim 13, wherein said intracanal shield is wherein said shield is at least partially composed of polyurethane foam. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 20 with the exception of the claimed matter. As stated above apropos of claim 1, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 20 with the exception of the claimed matter. Regarding claim 20, Brown teaches on a replaceable acoustic coupler, including a cerumen-protecting feature (Abstract), made of a compressible material, such as polyurethane foam or silicone, to conform to the shape of ear canal, thus sealing the ear canal (column 7, lines 7-15). Thus it would have been obvious to one of ordinary skill in the art to have the shield at least partially composed of polyurethane foam for the benefit of enabling Oliveira's intracanal device to better conform to the shape of ear canal, thus sealing the ear canal.

Claim 21 claims the hearing system of claim 13, wherein said shield is at least partially composed of silicone material. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 21 with the exception of the claimed matter. Regarding **claim 21**, Brown teaches on a replaceable acoustic coupler , including a cerumen-protecting feature (Abstract), made of a compressible material, such as polyurethane foam or silicone, to conform to the shape of ear canal, thus sealing the ear canal (column 7, lines 7-15). Thus it would have been obvious to one of ordinary skill in the art to have the shield at least partially composed of silicone for the benefit of enabling Oliveira's intracanal device to better conform to the shape of ear canal, thus sealing the ear canal.

Claim 23 claims the hearing system of claim 13, wherein said shield is fabricated and dimensioned to be positioned deep in the ear canal past the hair and cerumen production therein. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 23 with the exception of the claimed matter. Regarding **claim 23**, Brown discloses a replaceable acoustic coupler, including a cerumen-protecting feature (Abstract), adapted for use with an intracanal receiver module can be deeply inserted into the ear canal of the user while making minimal contact with the walls of the ear canal (See Abstract). Therefore, the concept of having a intracanal device that can be deeply inserted in the ear canal was well known at the time of filing. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveira's intracanal device so that it could be inserted deeply into the ear for the benefit of enabling a deeper insertion of the hearing aid.

8. **Claims 3,6,15 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliveira (U.S. Patent 5,401,920) in view of Haertl (U.S. Patent 987,597).

Claim 3 claims the intracanal shield of claim 1, wherein said intracanal shield is attached to said canal hearing device for insertion into and removal from said ear canal along with said hearing device. As stated above apropos of claim 1, Oliveira meets all elements of that claim. Regarding claim 3, Haertl discloses an apparatus for closing openings of a hearing aid or an ear adapter for hearing aids having caps, both the caps 12 and 13 each have a micro-porous polytetrafluorethylene membrane (14) that forms means for sealing the respective openings against earwax and sweat, which are both secreted in the auditory or ear canal (column 3, lines 10-32). Figure 1 indicates that the intracanal shield is attached to the hearing device as claimed. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveira's intracanal device so it would be attached to the hearing device as claimed for the benefit of better preventing the penetration of the earwax.

Claim 6 claims the intracanal shield of claim 1, wherein said porous member comprises a porous membrane. As stated above apropos of claim 1, Oliveira meets all elements of that claim. Therefore, Oliveira meets all elements of claim 6 with the exception of the claimed matter. Regarding claim 6, Haertl discloses an apparatus for closing openings of a hearing aid or an ear adapter for hearing aids having caps, both the caps 12 and 13 each have a micro-porous polytetrafluorethylene membrane (14) that forms means for sealing the respective openings against earwax and sweat, which are both secreted in the auditory or ear canal (column 3, lines 10-32). Thus it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Oliveira's intracanal device so that the porous member would include a porous membrane for the benefit of better preventing the penetration of the earwax.

Claim 15 claims the hearing system of claim 13, wherein said shield is attached to said hearing device for insertion into and removal from said ear canal along with said hearing device. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 15 with the exception of the claimed matter. Regarding claim 15, Haertl discloses an apparatus for closing openings of a hearing aid or an ear adapter for hearing aids having caps, both the caps 12 and 13 each have a micro-porous polytetrafluorethylene membrane (14) that forms means for sealing the respective openings against earwax and sweat, which are both secreted in the auditory or ear canal (column 3, lines 10-32). Figure 1 indicates that the intracanal shield is attached to the hearing device as claimed. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliveira's intracanal device so it would be attached to the hearing device as claimed for the benefit of better preventing the penetration of the earwax.

Claim 18 claims the hearing system of claim 13, wherein said porous member comprises a porous membrane. As stated above apropos of claim 13, Oliveria meets all elements of that claim. Therefore, Oliveria meets all elements of claim 18 with the exception of the claimed matter. Regarding claim 18, Haertl discloses an apparatus for closing openings of a hearing aid or an ear adapter for hearing aids having caps , both the caps 12 and 13 each have a micro-porous polytetrafluorethylene membrane (14) that forms means for sealing the respective openings against earwax and sweat, which are both secreted in the auditory or ear canal (column 3, lines 10-32). Thus it would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 2644

invention to modify Oliveira's intracanal device so that the porous member would include a porous membrane for the benefit of better preventing the penetration of the earwax.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to intracanal caps in general:

U.S. Patent No. 6,164,409 to Berger

U.S. Patent No. 6,000,492 to Puthuff et al.

U.S. Patent No. 6,105,713 to Brimhall et al.

U.S. Patent No. 5,327,500 to Campbell

U.S. Patent No. 4,553,627 to Gastmeier et al.

U.S. Patent No. 4,870,689 to Weiss

U.S. Patent No. 4,706,689 to Topholm


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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XU MEI
PRIMARY EXAMINER